



TOP SECRET

IMAGERY
ANALYSIS
DIVISION

PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

[REDACTED]
K'AI-YUAN NITROGEN FERTILIZER PLANT

K'AI-YUAN, CHINA

Declass Review by
NIMA/DOD

[REDACTED]

25X

25X

CIA/PIR 65118

[REDACTED]

DATE MAY 1966

CC PY

PAGES 9

TOP SECRET

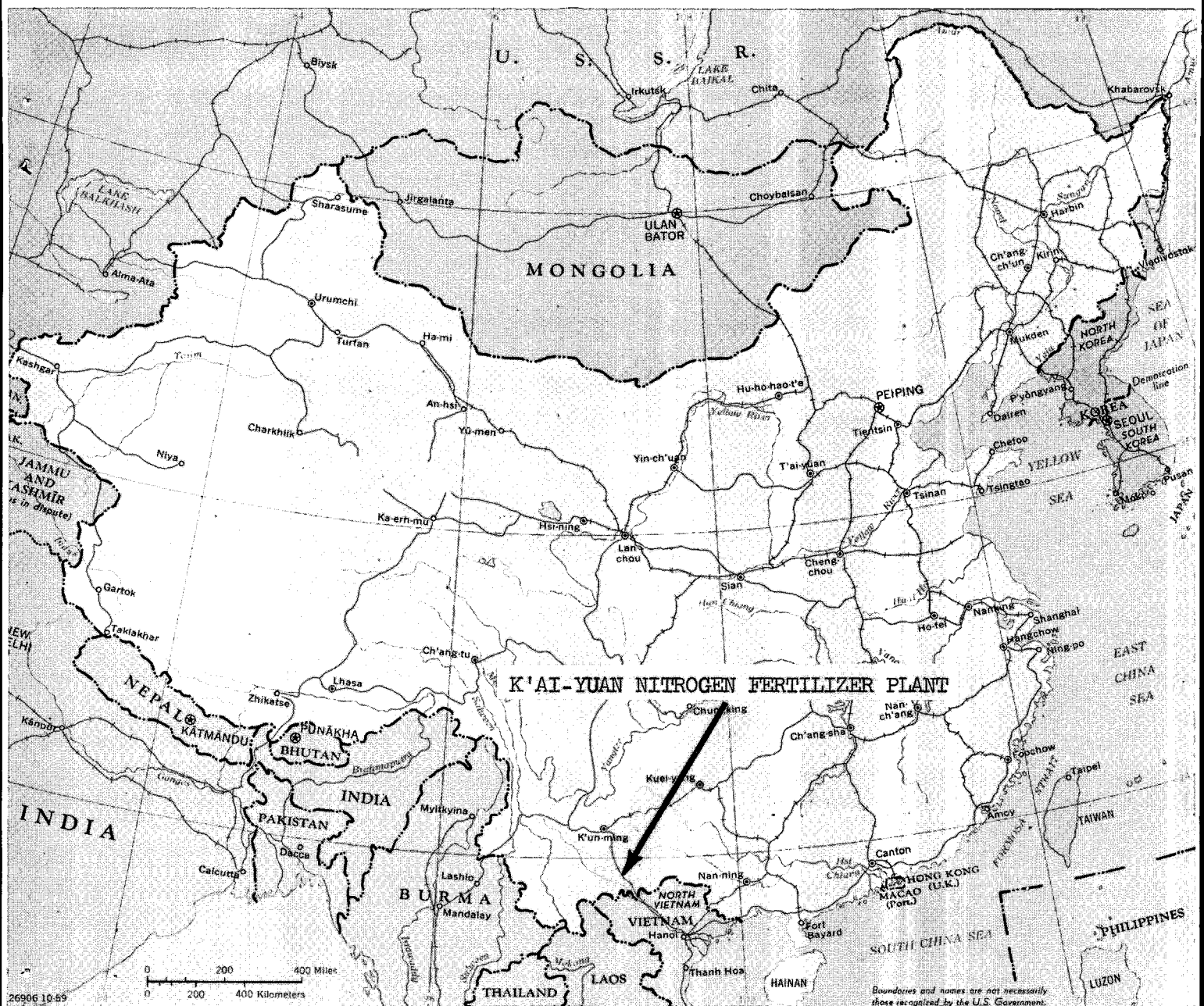
25X1

Approved For Release 2004/05/05 : CIA-RDP78T05161A000600010037-3

Approved For Release 2004/05/05 : CIA-RDP78T05161A000600010037-3

Approved For Release 2004/05/05 : CIA-RDP78T05161A000600010037-3

[illegible]



Prepared By:

Chemical and Scientific Section
Industrial Branch, IAD

TOP SECRET

FIGURE 2



4/08/08

CIA IMAGERY ANALYSIS DIVISION

K'AI-YUAN NITROGEN FERTILIZER PLANT
 K'AI-YUAN, CHINA

The K'ai-yuan Nitrogen Fertilizer Plant is located at 23 44N - 103 15E in the northeastern section of K'ai-yuan in Yunnan Province, China (Figures 1 and 2). It is road and rail served and covers an area of approximately 3,300,000 square feet.

Synthetic ammonia, nitric acid, and ammonium nitrate are produced at this plant. Following synthesis of ammonia, some of the ammonia produced is oxidized to nitric acid. This nitric acid is then reacted with ammonia to form ammonium nitrate, the final product. The facilities necessary to produce each of these products have been identified on Figure 6.

All available photographic coverage during the period [] was examined in order to follow the construction of this plant. Enlargements from the best coverage have been included in this report (Figures 3-6). The following discussion describes the significant changes and activity by mission (all annotation numbers keyed to Figure 6):

(1) [] The plant was in a late stage of construction with most of the major facilities nearly complete. Construction of the external facilities associated with the nitric acid production building (Annotation 10) was underway. Approximately 32 gondola/hopper cars were observed within the plant area as well as vehicular activity. In addition, coal storage was noted near Annotation 1.

(2) [] (Figure 3) - The tower for waste gas dispersal (Annotation 12) had been erected and a second water treating pond had been constructed since []. A change in the configuration of open coal storage, the presence of an ash pile north of the boiler-house, and the filled appearance of the gasholders indicated that the facilities for gas production had been in operation. Eight rail cars were observed near the ammonium nitrate packaging and shipping building (Annotation 15) as well as vehicular activity within the plant.

(3) [] (Figure 4) - A large thermal power plant was under construction west of the fertilizer plant (Annotation 19). A second nitric acid absorber tower on the north side of the nitric acid production building (Annotation 10) and a second stack on the south side

TOP SECRET

PIR - 65118

CIA IMAGERY ANALYSIS DIVISION

of the building had been constructed. Presumably this would double the production capability in this facility. Additional construction since [] included a cooling tower, several warehouses, and a new administration building. Fumes from the retort building (Annotation 3) and the ammonium nitrate production building (Annotation 14) indicated that the plant was in operation.

(4) [] (Figure 5) - Construction of a small gasholder (Annotation 5) had just begun. Approximately 5 rail cars were observed near the ammonium nitrate packaging and shipping building (Annotation 15).

(5) [] Further progress in the construction of the thermal power plant (Annotation 19) was noted. The power plant building was nearing completion and a large cooling tower, additional rail service, and a covered above-ground gallery leading from the power plant to the electrical substation and control house (Annotation 8) had been constructed. Coal was observed in the power plant area as well as smoke coming from the power plant stack.

(6) [] (Figure 6) - A third and possibly a fourth nitric acid absorber tower are under construction on the north side of the nitric acid production building (Annotation 10). The small gasholder (Annotation 5) appeared complete and filled, but no above-ground pipeline could be seen leading to the gasholder.

[]

located along the rail line between Kun-ming, China and Lao Cai, North Vietnam, approximately 75 nautical miles from the China-North Vietnam border. In time of war, the ammonium nitrate produced here could be shipped to an explosives plant to be mixed with other chemicals to produce a high explosive. In addition, the lack of published information in the Communist Chinese press about the construction of this plant, in contrast to publicity given to almost all other such plants in China, may be an indicator of the strategic nature of this plant.

TOP SECRET

K1

Approved For Release 2004/05/05 : CIA-RDP78T05161A000600010037-3

TOP SECRET

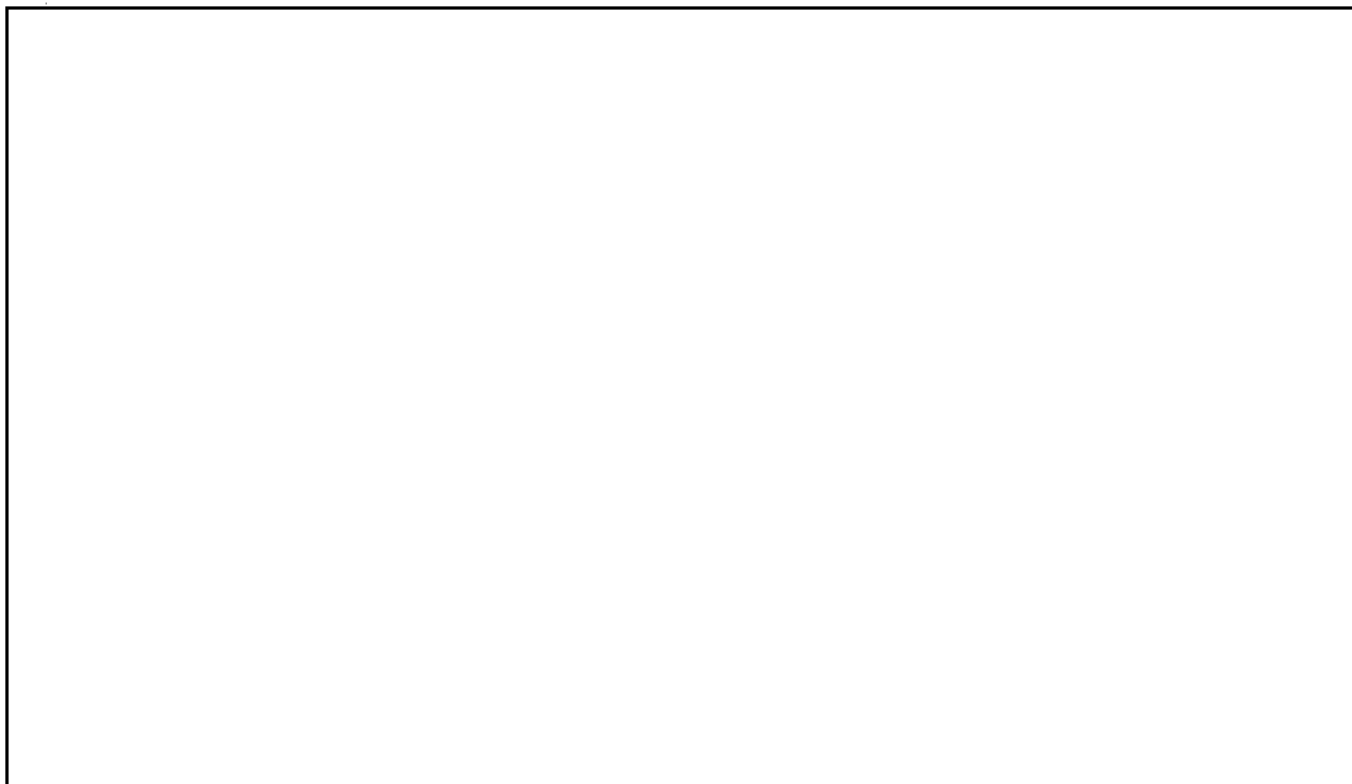
PIR - 65118

25X

CIA IMAGERY ANALYSIS DIVISION

REFERENCES

25X



MAPS AND CHARTS

General Locator Map, China - 29606 (UNCLASSIFIED)

AMS. Series L500, NF 48-1, Meng-tzu (Mengtsz), China, Edition 1-AMS.
(UNCLASSIFIED)

REQUIREMENT

C-RR5-83,036

CIA/IAD PROJECT

30432-6

- 3 -

25X

Approved For Release 2004/05/05 : CIA-RDP78T05161A000600010037-3

TOP SECRET

PIR - 65118
FIGURE 3

K'AI-YUAN NITROGEN FERTILIZER PLANT
K'AI-YUAN, CHINA
23 44N - 103 15E

4/05/05 SECRET-1A-RDP78.T

037-3

PIR - 65118
FIGURE 4


K'AI-YUAN NITROGEN FERTILIZER PLANT
K'AI-YUAN, CHINA
23 44N - 103 15E

TOP SECRET
Approved For Release 2004/05/05 : CIA-RDP78-00014A00010001000373

TOP SECRET

2000050505 : CIA-RDP80-05161A000600010037-3

037-3

PIR - 65118
FIGURE 5

K'AI-YUAN NITROGEN FERTILIZER PLANT
K'AI-YUAN, CHINA
23 44N - 103 15E

25X1
25X1

TOP SECRET

PIR - 65118
FIGURE 6

K'AI-YUAN NITROGEN FERTILIZER PLANT
K'AI-YUAN, CHINA
23 44N - 103 15E

KEY

1. Coal storage and preparation bldg.
2. Boilerhouse
3. Retort bldg.
4. Two gasholders, camouflaged
5. Gasholder, recently constructed
6. Water treatment facilities
7. Gas purification facilities
8. Electrical substation and control house
9. Ammonia synthesis bldg.
10. Nitric acid production bldg.
11. Gasholder
12. Tower for waste gas dispersal
13. Camouflaged bldg.
14. Ammonium nitrate production bldg.
15. Ammonium nitrate packaging and shipping bldg., rail served
16. Warehouse area, rail served
17. Shops, storage/temporary construction bldgs., and open material storage
18. Administration area
19. Thermal power plant under construction

TOP SECRET

TOP SECRET

TOP SECRET